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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/561,593

05/07/2007

Pierre Charrue

10404.030.00-US

6464

30827 7590 04/15/2010
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EXAMINER

HOPKINS, ROBERT A

ART UNIT

PAPER NUMBER

1797

MAIL DATE

DELIVERY MODE

04/15/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/561,593	Applicant(s) CHARRUE ET AL.	
	Examiner Robert A. Hopkins	Art Unit 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
4a) Of the above claim(s) 22-25 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 9, 10, 14, 15 and 18-21 is/are rejected.
- 7) ☒ Claim(s) 7, 8, 11-13, 16 and 17 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Election/Restrictions

Applicant's election with traverse of claims 1-21 in the reply filed on 3-10-2010 is acknowledged. The traversal is on the ground(s) that the search for the subject matter of group I would overlap with a search for the subject matter of group II, and the examiner does not provide evidence that it would be a serious burden to examine these claims. . This is not found persuasive because the group I claims and the group II claims do not share a special technical feature of a first enclosure and a second enclosure and a means for depressurizing or pressurizing the interior of the first enclosure. Furthermore, method claims would require search for separation of specific materials being extracted and concentrated, which would require a search which is divergent from the search for the apparatus claims.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 112

Claims 19-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 19-21 recites "that it ...". Examiner is unclear as to what is meant by "it" in each claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-6,9,10 ,18-21 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by James(2009664).

James teaches an apparatus for extracting gaseous , liquid, and/or solid elements from a gaseous medium and concentrating them in a liquid medium, by nebulizing this liquid medium by means of the gaseous medium and then condensing the droplets of liquid medium forming the mist produced by the nebulization , the apparatus comprising a first enclosure(2c) for nebulization and condensation, which has an upper part and a lower part intended to contain the liquid medium, and which is provided with a conduit(5c) for delivering the gaseous medium, means(figure 2) for nebulizing the liquid medium, and a first conduit(19) for discharging the gaseous medium, means(22) for depressurizing or pressurizing the interior of the first enclosure to allow the gaseous medium to enter the first enclosure, circulate therein, and be discharged therefrom in a continuous flow, at least one second enclosure(29) for condensation, the second enclosure being connected to the conduit for discharging the gaseous medium from the first enclosure, and being provided with a second conduit(33) for discharging the second medium, and means(water jacket surrounding the

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condenser) for cooling the second enclosure. James further teaches the gaseous medium delivery conduit of the first enclosure having a first end located outside the first enclosure and a second end housed in the first enclosure, means for nebulizing comprise a nebulization nozzle which is located level with the second end of the conduit and which has at least one orifice, and a nebulization tube provided with two openings, a first opening which is located in the lower part of the first enclosure, and a second opening which is flush with the orifice of the nebulization nozzle. James further teaches wherein the nebulization nozzle is formed by a reduction in cross section of the gaseous medium delivery conduit of the first enclosure. James further teaches wherein the nebulization nozzle consists of a piece attached to the second end of the gaseous medium delivery conduit of the first enclosure. James further teaches wherein the orifice of the nebulization nozzle is oriented towards the upper part of the first enclosure and the second opening of the nebulization tube is located immediately above this orifice. James further teaches wherein the first enclosure is composed of three parts, a reservoir which forms the lower part of the first enclosure and which is intended to contain the liquid medium, a nebulization chamber which forms the intermediate part of the first enclosure and which houses the orifice of the nebulization nozzle and the second opening of the nebulization tube, and a condensation dome which forms the upper part of the first enclosure. James further teaches the first enclosure is composed of two parts, a reservoir which forms the lower part of this first enclosure and which is intended to contain the liquid medium, which reservoir has a bottom whose surface area is less than a cross section of the reservoir(see figure 1), this cross section being flush

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with the surface of the liquid medium when the apparatus is operational, and a nebulization chamber which forms the upper part of the apparatus and which house the orifice of the nebulization nozzle and the second opening of the nebulization tube.

James further teaches the reservoir has a shape which tapers from the bottom upwards.

James further teaches the first enclosure and the second enclosure can be dismantled.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 14,15 are rejected under 35 U.S.C. 103(a) as being unpatentable over James(2009664).

James teaches all of the limitations of claim 14 but is silent as to means for cooling the second enclosure are a Peltier effect cell. James teaches a condenser with a water bath, however Peltier effect cell cooling devices are well known, therefore it would have been obvious to someone of ordinary skill in the art at the time of the invention to provide means for cooling the second enclosure are a Peltier effect cell to provide a more efficient mechanism for condensing liquid in the second enclosure.

James teaches all of the limitations of claim 15 but is silent as to the second enclosure contains packing. Examiner respectfully submits packed towers for contacting devices are well known, therefore it would have been obvious to someone of ordinary skill in the art at the time of the invention to provide packing within the second

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enclosure of James in order to increase the residence time for gasflow through the second enclosure.

Allowable Subject Matter

Claims 7,8,11,12,13,16,17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 7 and 12 recites “the second enclosure having a base and a top, the first conduit for discharging the gaseous medium is a conduit with a bend which connects the nebulization chamber of the first enclosure to the base of the second enclosure”. James teaches a gaseous discharge conduit which is vertical with the second enclosure. It would not have been obvious to someone of ordinary skill in the art at the time of the invention to provide the first conduit for discharging the gaseous medium is a conduit with a bend which connects the nebulization chamber of the first enclosure to the base of the second enclosure because James does not suggest such a modification.

Claim 8 recites “characterized in that the orifice of the nebulization nozzle is oriented towards the lower part of the first enclosure, and second opening of the nebulization tube is located immediately below this orifice”. James teaches a orifice of the nebulization nozzle which is oriented towards an upper part of the first enclosure. It would not have been obvious to someone of ordinary skill in the art at the time of the invention to provide the orifice of the nebulization nozzle is oriented towards the lower

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part of the first enclosure, and second opening of the nebulization tube is located immediately below this orifice because James does not suggest such a modification.

Claim 11 recites “the nebulization chamber has two walls: an outer wall onto which the first conduit for discharging the gaseous medium is to be connected , and an inner wall which is located entirely above and at a distance from the reservoir ...”.

James fails to teach the nebulization chamber has two walls: an outer wall onto which the first conduit for discharging the gaseous medium is to be connected , and an inner wall which is located entirely above and at a distance from the reservoir. It would not have been obvious to someone of ordinary skill in the art at the time of the invention to provide the nebulization chamber has two walls: an outer wall onto which the first conduit for discharging the gaseous medium is to be connected , and an inner wall which is located entirely above and at a distance from the reservoir because James does not suggest such a modification.

Claim 13 recites “the first enclosure comprises an element for stabilizing the surface of the medium, this element being intended to lie below and at a short distance from this surface when the apparatus is operational...”. James fails to teach the first enclosure comprises an element for stabilizing the surface of the medium, this element being intended to lie below and at a short distance from this surface when the apparatus is operational. It would not have been obvious to someone of ordinary skill in the art at the time of the invention to provide the first enclosure comprises an element for stabilizing the surface of the medium, this element being intended to lie below and at a

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short distance from this surface when the apparatus is operational because James does not suggest such a modification.

Claim 16 recites “characterized in that the lower part of the first enclosure is provided with at least one system for detecting or quantitatively determining the gaseous , liquid and/or solid elements extracted from the gaseous medium and concentrated in the liquid medium when the apparatus is operational”. James fails to teach a system for detecting or quantitatively determining the gaseous , liquid and/or solid elements extracted from the gaseous medium and concentrated in the liquid medium when the apparatus is operational. It would not have been obvious to someone of ordinary skill in the art at the time of the invention to provide a system for detecting or quantitatively determining the gaseous , liquid and/or solid elements extracted from the gaseous medium and concentrated in the liquid medium when the apparatus is operational because James does not suggest such a modification.

Claim 17 recites “characterized in that the lower part of the first enclosure is removable”. James teaches a lower part of a first enclosure which is non-removable. It would not have been obvious to someone of ordinary skill in the art at the time of the invention to provide the lower part of the first enclosure is removable because James does not suggest such a modification.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert A. Hopkins whose telephone number is 571-272-1159. The examiner can normally be reached on Monday-Thursday, 7:30am-5pm, every Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on 571-272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Rah
April 7, 2010

/Robert A Hopkins/
Primary Examiner, Art Unit 1797